



**State of New Jersey**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**  
DIVISION OF HAZARDOUS WASTE MANAGEMENT

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NO. P905-518-294

15 FEB 1991

Cris Anderson, Manager  
Environmental Affairs  
L.E. Carpenter Company  
1301 E. Ninth Street, Suite 3600  
Cleveland, OH 44114

Dear Mr. Anderson:

Re: L.E. Carpenter ACO, dated September 26, 1986

Work Plan: Enhanced Immisible Product Recovery System, January 18, 1991

The New Jersey Department of Environmental Protection has reviewed the above cited submission for the proposed alternative to the existing product recovery system and finds the selection of additional recovery wells acceptable, providing that the following comments and recommendations are addressed.

Comments

1.1 Project Description and Objectives

The Background Section should point out that the basic reason the ACO calls for recovering free product is to remove the source of groundwater pollution from the site as the first step of remediation; treating the contaminated groundwater itself is the second step.

2.1.2 Extent of Immisible Product, Page 9

Figure 2-1 does not accurately depict the extent of the estimated free product plume. Elevated levels of VO's at TP-4 indicates that the free product plume has migrated further east toward the drainage ditch. It is also suspected that the free product plume has migrated further south and east on the Wharton Enterprises property, as demonstrated by the elevated levels of VO's detected in samples from



the off-site test pits. These changes may modify well locations and must be considered.

2.3 It would help to understand the problem(s) encountered in selecting the optimum alternative if the workplan enunciated the several physical parameters that had to be considered in the selection process and pointing out which parameter is controlling.

## 2.2 Existing Recovery Well System

L.E. Carpenter must better explain last paragraph, page 12 continued top page 13, concerning the effects of water level on product thickness; the physical mechanism is not clear.

## 3.2 Additional Recovery Well Alternative, Page 18

The location of additional recovery wells (near MW-2 and MW-3) is based on the approximate extent of immiscible product layer as shown on Figure 2-1. Based on the reasons stated in comment on paragraph 2.1.2 above, the proposed locations of additional product recovery wells does not address the floating product on Wharton Enterprises property, (specifically the free product detected in the vicinity of TP-83, 86 and 88) which is down gradient of MW-2 and MW-3. The recovery of free product on Wharton Enterprises property must be included in the proposed Work Plan.

## 3.3 Caisson Sump Alternative

The text appears inconsistent in its description of recovery from these sumps. On page 23 "...advantages": text states that "The larger diameter results in a greater influx..." and, on page 26 it states "The performance of...caisson sump.... be same as or slightly greater than ...recovery well alternative..." L.E. Carpenter must correct the apparent ambiguity of these statements.

## 4.1.1 Improvements to the Existing Recovery System, Page 34

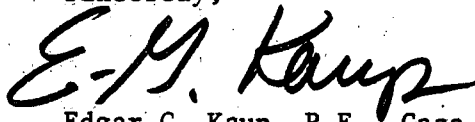
The Work Plan states that, "Since product recovery rates will be enhanced, the collection drums will need to be checked and removed more frequently." The Work Plan also indicates that the limited product collection tank volume (a 55 gallon drum) has contributed to less than optimal recovery in the existing system.

Therefore, it is recommended that an aboveground storage tank of suitable capacity be installed as part of the new recovery system, to insure maximum storage capability of the recovered product. The tank must be equipped with a suitable automatic shut-off valve(s) that would prevent overflow spills.

L.E. Carpenter should respond to these comments within ten (10) days from the time of their receipt. The work plan may be modified by an "Addendum" at that time.

Should you have any questions or if a meeting is desired please contact me at (609) 633-1455.

Sincerely,

A handwritten signature in dark ink, appearing to read "E-G. Kaup". The signature is fluid and cursive, with the first name "E-G." and the last name "Kaup" clearly distinguishable.

Edgar G. Kaup, P.E., Case Manager  
Bureau of Federal Case Management

kj

c: G. Blyskun, BGWPA  
J. Josephs, USEPA II  
J. Prendergast, BEERA  
D. Henderson, WSI